

Dayton-Granger, Inc. Physical Address: 3299 SW 9th Avenue Fort Lauderdale, FL 33315-3026 Tel (954) 463-3451

Mailing Address: P.O. Box 350550 Fort Lauderdale, FL 33335-0550 http://www.daytongranger.com

## DESIGN & PERFORMANCE CHARACTERISTICS DAYTON - GRANGER'S FAMILY OF TRANSTRIKE LIGHTNING DIVERTER STRIPS

## **BRIEF DESCRIPTION:**

The lightning diverter strips described in this document are designed to minimize or prevent damage to aircraft radomes and other dielectric structures in the event of a lightning strike. The strips consist of metal segments connected by a resistive track on a dielectric substrate. The strips are designed so that an ionized channel is established over the metal segments during the lightning strike. The lightning current travels in this ionized channel above the segments. The strips can withstand repeated lightning strikes. The basic design objective is to prevent or minimize lightning current from damaging or entering the radome. This design objective is effectively accomplished with the proper installation of Transtrike Lightning Diverter Strips.



## DIVERTER TYPES:

ТҮРЕ	DESCRIPTION	THICKNESS INCHES	WIDTH INCHES	WEIGHT GRAMS/FT.
LSSQ	Ultraguard	.019	0.4	1.5
LSDL	Large Diamond	.022	0.4	1.8
LSDS	Small Diamond	.022	0.4	1.7
LSRL	Large Round	.022	0.4	1.8
LSRS	Small Round	.022	0.4	1.7
LSSQG	Ultraguard-Gold- plated	.019	0.4	1.5

### DIVERTER BASIC SUBSTRATE MATERIAL:

LAMINATE	SEGMENTS	FINISH
Epoxy glass MIL-P-55617	Nickel - plate over copper	Polyurethane MIL-C-81773

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# **ELECTRICAL PERFORMANCE: MIL-STD-1757A**

DIVERTER TYPE	RESISTANCE MEGOHM/FT	IONIZATION KV	KV/INCH	TRANS @18 GHZ dB	GPARENCY @40 GHZ dB
Ultraguard	.25 – 10	16	0.53	-0.9	-1.2
Large Diamond	.25 – 10	23	0.76	-0.5	- 0.9
Small Diamond	.25 – 10	25	0.83	-0.4	-0.5
Small Round	.25 – 5.25	35	1.5	-0.4	-0.6
Large Round	.25 – 5.25	32	1.0	-0.5	- 0.9
Ultraguard Gold-plated	.25 - 10	16	0.53	-0.9	-1.2



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#### ISO 9001:2008 + AS9100C

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### DIVERTER OPERATIONAL CRITERIA: MIL-STD-RTCA/DO-160D

TEMPERATURE	-77°F TO 165°F
ALTITUDE	SEA LEVEL TO 50,000 FEET
FLUID RESISTANCE	DE-ICING, HYDRAULIC, JET A
SALT FOG	7.5 pH, 5% salt @ 95ºf & 12 psi

### PART NUMBER DERIVATION: REFERENCE DG PN 700099



### DIVERTER OPERATIONAL CRITERIA: MIL-STD-RTCA/DO-160D

### TABLE I

TERMINATION CODE	SCREW SIZE (INCHES)	HOLE SIZE (INCHES)
00	0	NONE
06	6–32	.142147
08	8-32	.170177
10	10-32	.194197
25	1⁄4-20	.257262

The information presented in this Declaration of Design and Performance is true and accurate.

Keilin A. Hendrich

Kevin A. Hendricks, Sr. Electrical Engineer

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